

Colorado Department of Health

Review and Comment

No Further Action Justification (NAFJ) Document
OU 16 - Low Priority Sites
July, 1992

General Comments:

1) The Division agrees that most of the IHSSs within OU 16 will probably not need further characterization to justify that no further action is warranted. However, as we stated in our comments to the draft version of this document, in order to conclusively determine that no further action is justified at a site, DOE must demonstrate that a site does not present an unacceptable risk to human health and the environment. Normally, this demonstration is based on information collected in the RFI/RI. However, since no RFI/RI has been done for the IHSSs in OU 16, an alternative demonstration of the lack of unacceptable risk becomes necessary. This demonstration could be accomplished by estimating the current concentration of contaminants at the sites (using dilution/degradation models or published experimental rates of transport/degradation). These estimated contaminant concentrations could be compared to action levels for the various contaminants in affected media which would present unacceptable risks considering direct exposure at the source (see our comments to the draft NFAJ). This type of demonstration would require that DOE include, in addition to the risk comparison, detailed discussions on the chemical properties, fate and transport variables, and toxicity for contaminants involved in the OU 16 sites. (The Division will not be able to accept demonstrations of low risk which only include phrases such as "it is unlikely ground water was affected" or "since the release, dilution has very likely lowered contaminant levels to below detection limits".)

A major reason for requesting this information is that when a "No Action" ROD/CAD is developed for these sites in OU 16, this information will undergo public comment scrutiny. In the absence of irrefutable sample data, the public will want a believable alternative demonstration that the sites do not present unacceptable risk levels.

Specific Comments:

Figure 2-9: This potentiometric surface map needs the actual water level data plotted next to the well points. In addition, the date that the water level data was collected needs to be included in the map legend.

Section 3.2.1: The location and extent of IHSS 185 indicated on Figure 2-9 is different from that shown in the Historical Release Report (HRR). Please correct this document or indicate why the HRR is in error.

Section 3.2.2: Please expand the text to include a more comprehensive discussion of the toxicity, degradation products, and degradation rate of ethylene glycol in all environmental media (soil, sediment, surface water, and ground water). In addition, please clarify whether or not this dilute ethylene glycol solution could have been contaminated with metals.

Section 3.2.3: Please expand the text to include a comprehensive discussion of the toxicity and chemical fate and transport properties of amines including, at least, degradation rates in all environmental media, degradation products, and availability to transport.

Section 3.2.4: It is inappropriate to compare the concentration of Tritium to maximum background levels. Instead, comparison should be made to the statistically determined mean value.

In addition, please expand the text to include a comprehensive discussion of the toxicity and chemical properties of Tritium including its radioactive properties (half-life, etc.).

Section 3.2.5: Please expand the text to include a comprehensive discussion of the chemical properties and toxicity of nickel oxide.

Section 3.2.6: The Division agrees that IHSS 196 needs further investigation. However, we disagree that the current OU 5 investigation for IHSS 115 (Old Landfill) is currently scoped to investigate IHSS 196. In fact, based on the location of IHSS 196 shown on Figure 2-9 and in the HRR, no portion of the IHSS 115 investigation will incorporate the IHSS 196 area. If this is true, either a separate Field Sampling Program should be developed for IHSS 196 or the OU 5 RFI/RI Workplan should be amended to allow for investigation of the IHSS 196 area. (Based on recent discussions with the DOE OU 5 project manager, further site research done for the HRR indicates that IHSS 196 could be the so-called "Landfill Pond" which is within the IHSS 115 boundary. More research on the exact location of this pond is necessary and should be included in a revised version of this document.)

Section 3.2.7: The location and extent of IHSS 197 indicated on

Figure 2-9 is different from that shown in the Historical Release Report (HRR). Please correct this document or indicate why the HRR is in error.

Because of the uncertainty of the location of this IHSS, the waste material volumes disposed therein, and whether all this waste was removed during PA perimeter construction, the Division believes that a no further action determination for this IHSS either requires further historical evidence that all waste was removed or requires further investigation. If it needs further investigation, we recommend that it be added to OU 13.

Table 3-1: The Division suggests the following changes to this table:

1) Except for IHSSs 196 and 197, the air, surface water, and ground water pathways have been eliminated because no source remains. It has been removed by either a specific removal action or by natural processes.

2) The pathways for IHSS 192 were not eliminated just because the source was contained by diversion. Hopefully, further discussion to be included in the text on the degradation of antifreeze will support that the source was removed by degradation and dilution, thereby eliminating complete pathways.

3) Nickel Oxide still remains in the area surrounding IHSS 195. Depending on its toxicity, pathways for Nickel Oxide may still be complete and need investigation.

4) It is not clear whether all of the waste disposed in IHSS 197 has been removed or investigated. Therefore, potentially complete pathways still exist and need investigation.